

GNG2101
Design Project Progress Update

Access Bridge – Group 3.4

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List of Acronyms and Glossary

Provide a list of acronyms and associated literal translations used within the document. List the acronyms in alphabetical order using a tabular format as depicted below.

Table 1. Acronyms

Acronym	Definition
CPM	Cost per Thousand

Provide clear and concise definitions for terms used in this document that may be unfamiliar to readers of the document. Terms are to be listed in alphabetical order.

Table 2. Glossary

Term	Acronym	Definition

1 Introduction

Prototyping plays a crucial role in the design process, enabling the team to simulate and refine existing concepts for the final product. This comprehensive report will offer a detailed overview of the prototype phase in the development of the LMS accessibility tool. It will analyze the DFX considerations highlighted in previous reports, alongside the critical assumptions chosen to evaluate various quantifiable aspects of the product. Further, the prototype testing process will be discussed and benchmarked against the previously established target specifications, to ensure that the final product meets the standards and criteria set forth by the team.

Additionally, a thorough presentation of the prototype will be prepared and shared with the client. This presentation will facilitate discussions around any further concerns related to the prototype, such as economic feasibility and design constraints. The report will also address interpersonal feedback and the dynamics of team collaboration, which are essential elements contributing to the project's success. Moreover, the insights gained from the prototype testing will be pivotal in guiding the subsequent stages of development, ensuring that the product aligns with both the client's expectations and the overarching goals of the project.

2 Prototype 1, Project Progress Presentation, Peer Feedback and Team Dynamics

2.1 Prototype 1

2.1.1. The goal of our first prototype is to create a front-end page and user interface. The first prototype will include a login/sign up page, home page to upload files, and a general analysis of the sample csv file. This is done using React libraries for JavaScript, with the help of firebase for user credentials storage. The first prototype ensures that the user interface is easy to use, simple and intuitive. One of the client's needs as outlined in the previous deliverable is to ensure an intuitive interface that can be easily used by the average non-technical user. Another element we will be testing with this prototype is uploading and scanning of the csv file, to ensure that it accurately reads and analyzes the uploaded file. This first prototype will cover a few different DFXs related to our project. Most importantly, design for usability, simplicity, and testability. The UI is designed with simplicity and usability in mind. The code contains lines for debugging, in case any issues come up which ensures our design is highly testable and easy to troubleshoot.

2.1.2.

Prototype Overview: AccessBridge

Purpose of the prototype: AccessBridge helps teachers manage and improve the accessibility of their course materials. It provides an easy-to-use platform where users can upload, analyze, and manage CSV files containing accessibility data from Ally, a tool that checks digital content for accessibility issues.

Functionality 1: User Login and Sign Up

Description: Users can sign up and log in to access and manage their files

Purpose: This feature makes the user experience more personal and secure by allowing users to manage their accessibility reports. Right now, the system does not save user data between sessions because it does not have a database yet. This means users have to re-upload their files each time they use the platform.

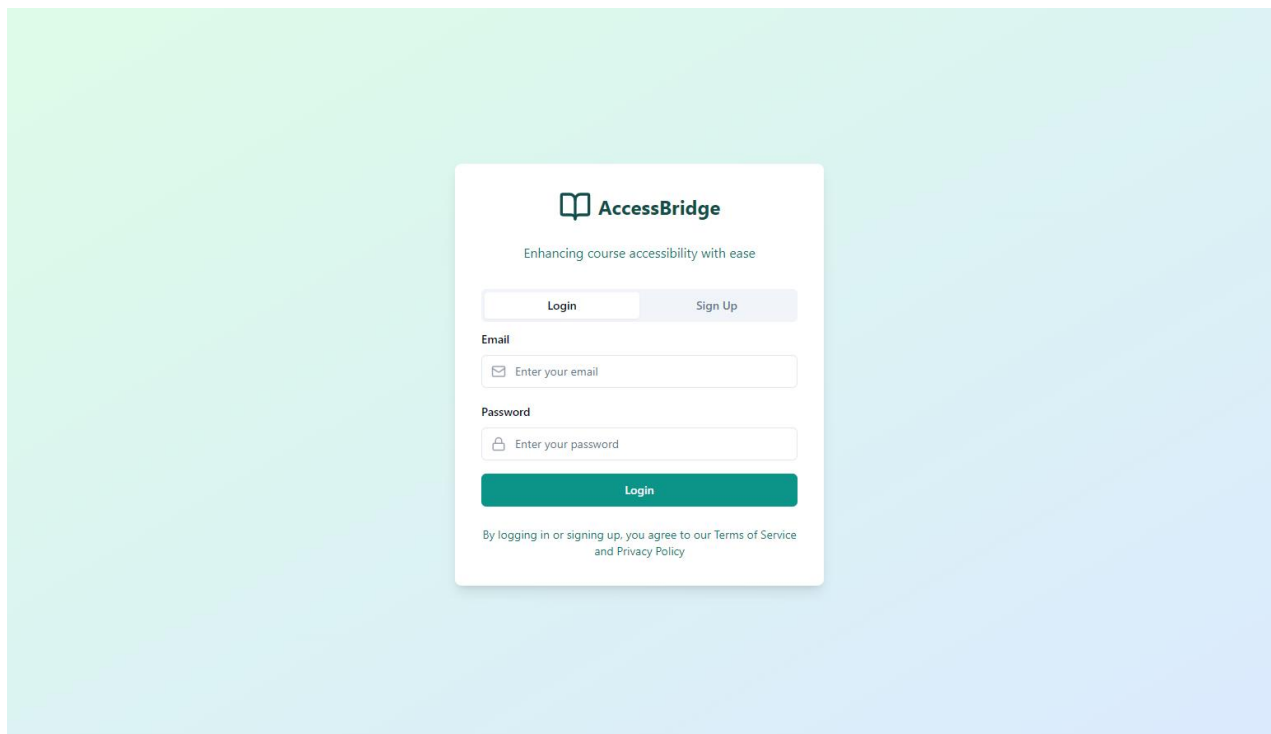
Functionality 2: Upload and Analyzing CSV Files

Description: Users can upload CSV files from Ally, which the system analyzes to show an overall accessibility score, the total number of issues, and the number of critical issues.

Purpose: This feature helps automate checking course material for accessibility. It gives teachers a clear overview of the problem they need to fix, making it easier to focus on the most important issues.

Screenshots and Descriptions:

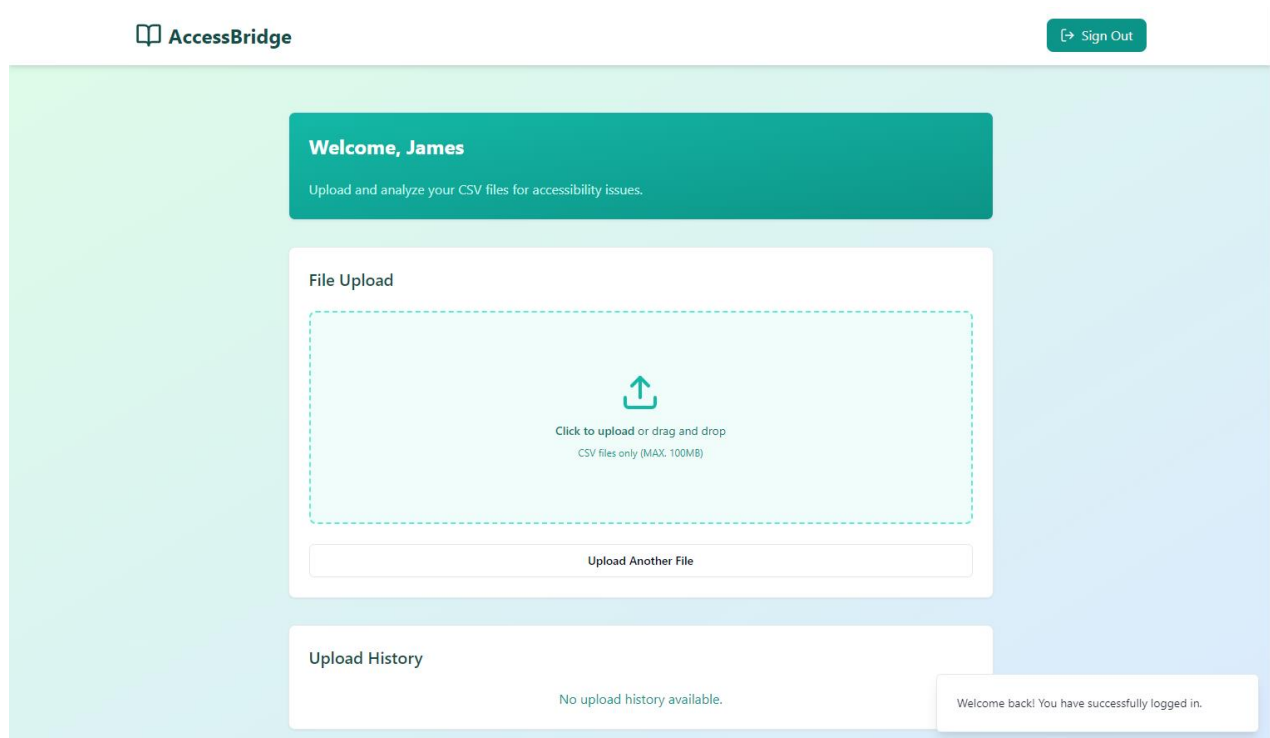
Login and Sign-up Screen



Description: The first screen where users can log in or sign up to use the platform.

Purpose: To provide a secure way to access the tools for managing accessibility.

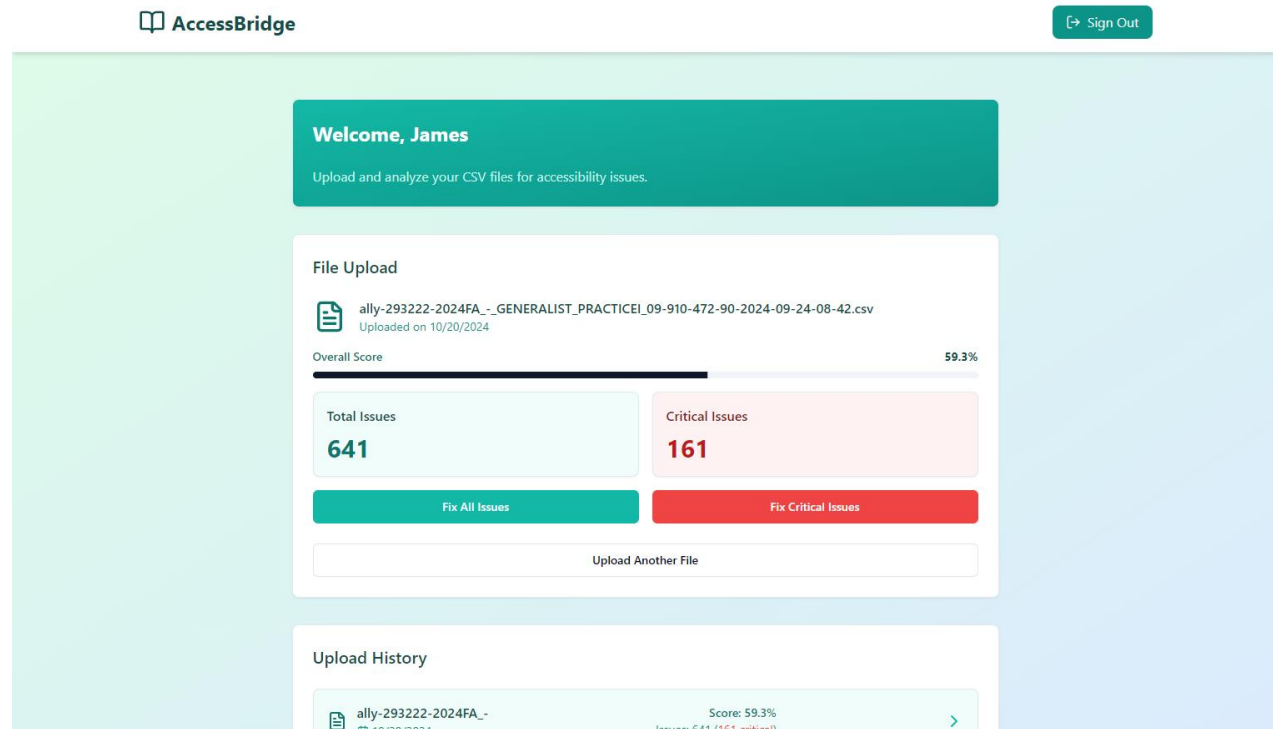
File Upload Interface



Description: After logging in, users see a simple drag-and-drop interface for uploading CSV files.

Purpose: To make uploading files quick and easy, so the platform is more user-friendly

Analysis Dashboard



Description: After a file is uploaded, the system analyses it and shows an overall score, total issues, and critical issues

Purpose: To give a quick summary of the accessibility status, so users can understand the problem and fix them faster.

Current Limitations and Future Improvements:

Saving User Data: Adding a database so users can save their data and files for future sessions, instead of re-uploading files each time.

Better Analysis Tools: Building more advanced tools that can provide more detailed information about accessibility issues and suggest specific fixes.

User Feedback: Adding ways for users to give feedback on how well the tool works, which will help make future versions better.

This document explains what AccessBridge can do right now, and how it helps with managing accessibility issues in educational content. Future updates will focus on fixing the current problems and adding new features based on user feedback and technology.

2.1.3. Prototype Testing

#	Metric	Units	AccessBridge	Target Specifications
5	How easy it is to use	Time On Task (Minutes)	<1	<20
8	How accurately it reads the file	Error Detection Rate (%)	95	>90
9	How many csv files it can handle as once	Number of files (No unit)	1	>2
10	How many different web browsers does it work on	Number of supported browsers (No units)	>3	>3

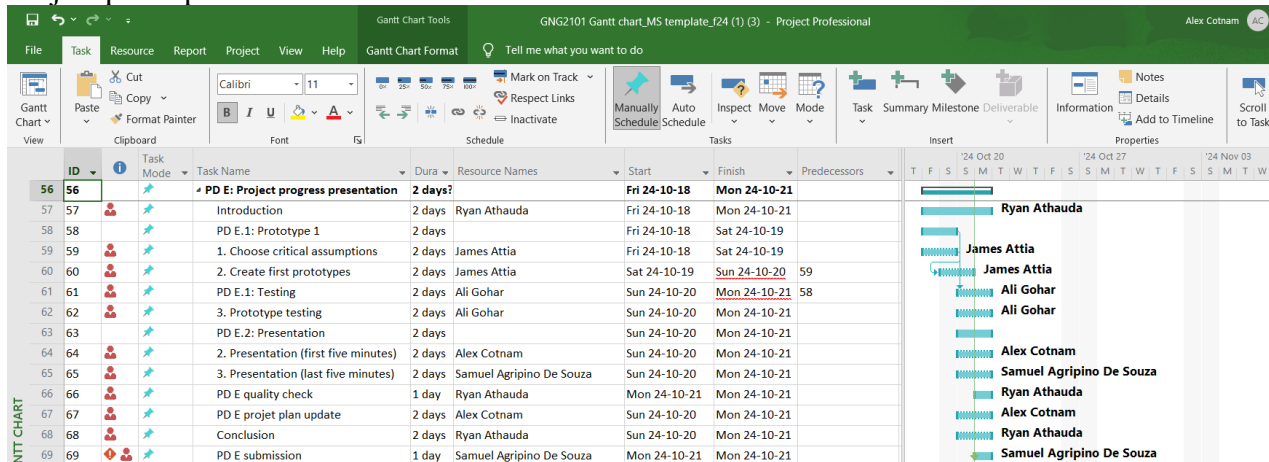
With our first prototype we can test a few different aspects of our design, specifically the ones outlined in the table above. Although our UI is not complete yet, the main tasks that can be done are logging in/signing up and uploading csv file. Both these tasks can be executed in under a minute,

as the program is very light weight and with the help of react libraries can compute tasks within seconds. As of right now the program can only read the csv file, and it does this very accurately, almost at 100% accuracy. We have implemented code to ensure that the user can only upload csv files, otherwise the program will give the user an error and prompt them to upload a csv file. Once the csv file is uploaded, it will analyze the file based on the algorithm that we have set, ensuring that the file is always accurately read. The only time there can be issues is if the uploaded file is damaged/corrupt or not in the format of the csv file generated from Ally's output. This is something that will be added in a later iteration, ensuring that the program verifies the contents of the csv file, before providing a result, which is why we gave it a score of 95% accuracy, if the file is correct, the program will analyze and display the correct information. As of right now, the program can only handle 1 csv file at once, although it saves the scores of the previous files in the upload history tab, the user cannot go back to a previous file as we don't have any data storage solutions yet. This will be added in later versions as well. Because the code is written mostly using JavaScript, the program can be run on a number of different web browsers, which support JavaScript. As for our testing, we tested the code on Microsoft Edge, Google chrome and Mozilla Firefox. The program runs flawlessly throughout the various web browsers.

2.2 Project Progress Presentation

https://docs.google.com/presentation/d/1sgeqNXyhCNQeUbQ2hupBH-WcpT0VdGdS_TrDpDpgcb0/edit#slide=id.gce893def0f_0_280

Project plan update



3 Design Constraints and Prototype 2

3.1 Design constraints

3.1.3 Design Constraints and their relation to DFX factors

The two primary and most important DFX factors that our design must satisfy are Design for Testability and Design for Standards. To ensure that the design meets the criteria of a “simple” design that meets standards, analysis and research are key. From the beginning, the team has been testing prototypes to ensure simplicity is at the forefront, since this is a major issue with the current tool (Ally). Some ways we have been promoting a simple design are by using simple fonts, a well-organized UI, and minimal text. To avoid bias, the team has shown the prototype(s) to different individuals to receive both validation and feedback. In addition to the visual aspects of simplistic design, AccessBridge has a very low Time on Task rate, at under a minute for users. This speaks to the simplicity and efficiency of the design. Consistent testing and simulation confirm these points as well, as the design consistently met or exceeded target specification numbers.

In addition to a simplistic and easy to use design, the prototypes must be testable. Testing is a key component of the project and its progress. In a web tool design such as AccessBridge, fast iteration cycles require lots of testing and subsequent improvements to be made. Monitoring the testability of AccessBridge is very simple, since the team has been working on the design for several weeks now. To monitor testability, we keep a record of changes and improvements made in deliverables. Along with this, the prototypes must be tested to comply with several target specifications (as listed below). If the design does not allow for these metrics and specifications to be calculated, the testability is subpar. The program is hosted locally, and every group member can do their own testing at any given moment. In technical terms, there are several quantitative methods to determine the testability of a web tool like AccessBridge. Modularity, for example, refers to the number of independent components of a design. The more of these components there are, the more testable a design will be. This is because a design that is highly interconnected will be difficult to test “piece-by-piece”. To this end, the components of AccessBridge such as Login and Data storage, UI, and file analyzing tool are all connected, but distinctly testable. Another metric for testability is the ease, accessibility, and documentation of code. The team uses VScode, which is open-source and easy to use for optimal testability. Due to the consistent iterations and updates required for this project, it is safe to say testability is well-documented and not an issue.

3.1.4. Updated Detailed Design

Functional Components	Details and Description
Authentication (Login)	<ul style="list-style-type: none"> Login with Email and Password: Uses <code>signInWithEmailAndPassword</code> to authenticate users. Signup with Email, Password, and Name: Creates a new user with <code>createUserWithEmailAndPassword</code> and updates the display name with <code>updateProfile</code>.
Flow	<ul style="list-style-type: none"> User provides credentials. Firebase authenticates (for login) or creates a new user (for signup). Redux stores the user's <code>displayName</code> for global access. On success, the user is redirected to the homepage. Error handling provides descriptive feedback if there are issues like incorrect passwords, invalid email formats, etc.
Linked Components	<ul style="list-style-type: none"> Homepage (after successful login). Redux is used to store user data, which is required across the app.
File Upload and Data Analysis	<ul style="list-style-type: none"> File Upload: Users can upload CSV files. File Parsing and Analysis: CSV data is parsed using Papa Parse, which generates metrics such as: <ul style="list-style-type: none"> Total Issues: Count of issues found in each row. Critical Issues: Specific high-priority issues (e.g., missing alt text, poor contrast). Overall Score: If available, this calculates the average score for accessibility.
Flow	<ul style="list-style-type: none"> User uploads a CSV file. The file is parsed, and data is analyzed. The results are displayed immediately in the current session and stored in an array (<code>csvFiles</code>) for viewing in the upload history. Each file's history includes: <ul style="list-style-type: none"> Overall score Total issues Critical issues
Linked Components	<ul style="list-style-type: none"> Upload History Page: Displays all the previously uploaded files with their analysis. Redux: Clears user data from global state.

Header and Sign-Out Functionality	<ul style="list-style-type: none"> Header: Displays the app logo and a sign-out button. Sign-Out: Uses Firebase's <code>signOut</code> function to log the user out, clears the Redux state, and redirects to the login page.
Flow	The user can click on "Sign Out," which logs them out from Firebase, clears their session, and brings them back to the login screen.
Linked Components	<ul style="list-style-type: none"> Login/Signup Page: Redirects after sign-out. Redux: Clears user data from global state.
User Interface Design	
Login or Signup page	<ul style="list-style-type: none"> Tabs allow the user to switch between login and signup. Each form contains: <ul style="list-style-type: none"> Login: Email, password fields, and submit button. Signup: Name, email, password fields, and submit button. Error messages are displayed in case of invalid input or failed attempts.
Homepage	After login, the homepage presents options to upload files or view upload history.
File Upload page	<ul style="list-style-type: none"> Users can upload CSV files through a drag-and-drop interface or by selecting from their device. Once uploaded, a loading bar or spinner could be shown (to simulate analysis time). Results are displayed once the file is parsed.
Document List page	<ul style="list-style-type: none"> Users can view the total issues with each document within the csv file, presented as a list sorted in ascending order of issues by default. Users can sort the documents from a drop-down menu. Can select which document to edit.
Document Edit page	After document is upload, "fix all issues" button will allow for automatic error fixing after file analysis.
Upload History page	<ul style="list-style-type: none"> Displays a table of previously uploaded files with: <ul style="list-style-type: none"> Overall Score Total Issues Critical Issues Clicking on a file brings the user back to the detailed analysis results for that file.

3.2 Prototype 2

3.3 Documentation of Latest Prototype

3.3.1 Prototype Overview

The newest prototype has three main features:

1. **Fix All Issues Button:** Lets users see and fix all the accessibility issues in a document.
2. **Fix Critical Issues Button:** Shows only the most important issues so users can focus on the biggest problems first.
3. **Download Button:** Allows users to download the document that will be analyzed.
4. **Analyze Document Interface:** Allows users to upload a document and initiate an accessibility analysis.

3.3.2 Functionality Documentation with Images

3.3.2.1 Fix All Issues Button

- **Purpose:** This button shows users a complete list of all the accessibility issues found in the document. By clicking it, users can go through each problem one by one and make sure they fix everything.
- **Function:** When users click the "Fix All Issues" button, it shows all the issues, so users can look at them and fix them step by step.

Document Analysis

Review and fix accessibility issues in your documents

← Back to Upload

Documents requiring attention

10stave.pdf Score: 5.0%	3 total issues	Download	Fix Issues
Assignment 13c.pdf Score: 65.4%	3 total issues	Download	Fix Issues
CP1.pdf Score: 5.0%	3 total issues	Download	Fix Issues
CP1.pdf Score: 5.0%	3 total issues	Download	Fix Issues
CP2.pdf Score: 5.0%	3 total issues	Download	Fix Issues
Rutgers Music 133 - Creative Project.pdf Score: 5.0%	3 total issues	Download	Fix Issues

Fix Critical Issues Button

- **Purpose:** This button lets users see only the most serious issues. It helps them focus on making the biggest improvements first. This is especially helpful if they don't have much time and need to fix the most important things right away.
- **Function:** When the "Fix Critical Issues" button is clicked, it filters out the less important issues and only shows the top-priority problems, so users can fix those first.

Critical Issues Analysis

[← Back to Upload](#)

Review and fix critical accessibility issues in your documents

Documents with Critical Issues

Assignment 13c.pdf
Score: 65.4%

2 critical issues found

[Download](#)[Fix Issues](#)

Assignment 7b.pdf
Score: 95.8%

1 critical issues found

[Download](#)[Fix Issues](#)

submitting_hw_guide.pdf
Score: 31.8%

1 critical issues found

[Download](#)[Fix Issues](#)


3.3.2.2 Download Button

- **Purpose:** This button lets users download the document. This lets the user download the download as they will need a copy of the document to analyze the document.
- **Function:** When the download button is clicked, the system creates a file that users can save to their device.

Fix Document[← Back to Document Analysis](#)

Review and fix accessibility issues in your documents

Fix Document



Please upload the sample final exam.doc.pdf file

sample final exam.doc.pdf

Analyze Document

Upload new file

Analyze Document Interface

- **Purpose:** This interface allows users to upload a document and initiate a detailed accessibility analysis. This step is crucial as it starts the process of identifying accessibility issues within the document.
- **Function:** Users are prompted to upload a file (e.g., a PDF), which is then prepared for analysis. After uploading, the user can click "Analyze Document" to generate an overview of accessibility issues in the document.

3.3.3 Prototype Testing

With added functionality to our prototype, we can carry out a few more tests to benchmark our product with our target specifications. Specifically, we can test how helpful the answers are and how clear the instructions are. Although we are using a placeholder for a pdf document being analyzed, we can still test to see the success rate of analysis and how consistent it is. Another metric we can measure now is the response accuracy rate and the conversion rate. The table 3.3.3.1 below summarizes the results of these findings plus previous results.

3.3.3.1 Prototype Testing Results Table

#	Metric	Units	AccessBridge	Target Specifications
2	How clear the instructions are	Fallback Rate (%)	10	<10
3	How well the important changes are shown first	Response Accuracy Rate (%)	90	>85
4	How helpful the answers are	Fallback Rate (%)	10	<10
5	How easy it is to use	Time On Task (Minutes)	<1	<20
7	Does it do what it is said to do	Conversion Rate (%)	90	>75
8	How accurately it reads the file	Error Detection Rate (%)	95	>90
9	How many csv files it can handle as once	Number of files (No unit)	1	>2
10	How many different web browsers does it work on	Number of supported browsers (No units)	>3	>3

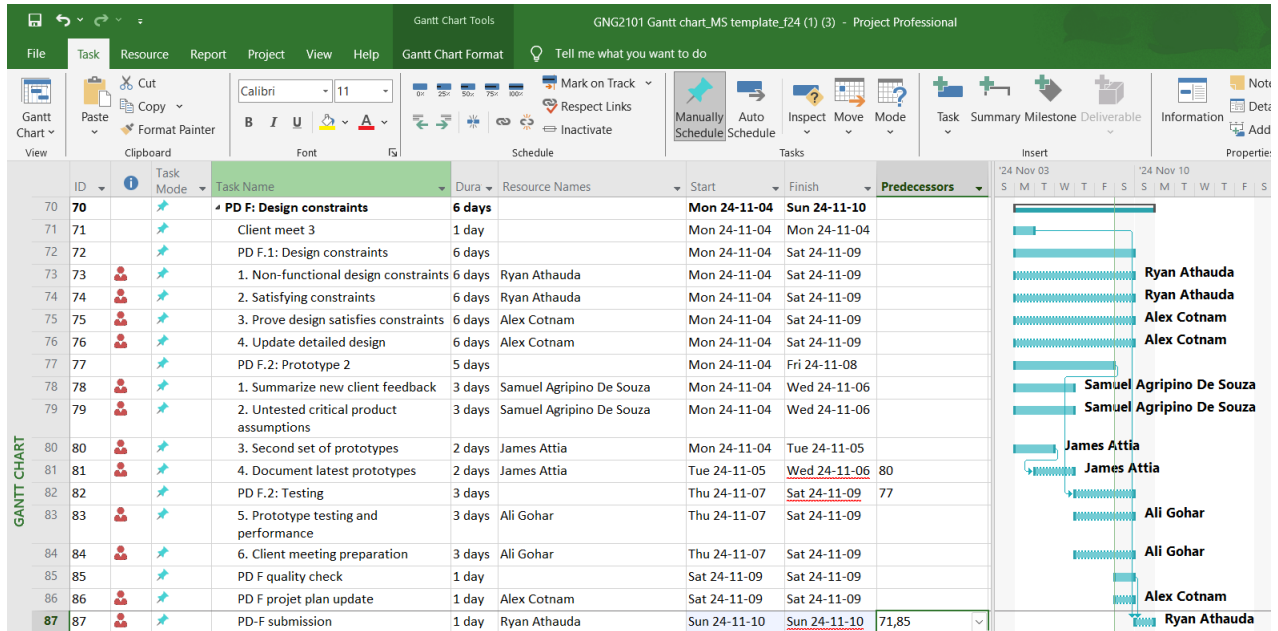
From the prototype testing summary, we can observe that our prototype exceeds or is within the target specifications. The response accuracy rate and conversion rate were measured by analyzing the placeholder document 10 times and comparing the results. 9/10 times the results were consistent and presented in an easy to understand, helpful fashion. 1/10 times the AI did experience hallucination, and provided a non-relevant answer, however that is to be expected and still falls within our target specifications. The fallback rate can be obtained with similar testing however a group of 10 students were asked on how helpful they thought the answers provided were and how clear the instructions were. 9/10 test subjects, said the instructions were clear and helpful, however 1 subject said the answer was starting off topic and could be more concise. This test shows that although our fallback rate is within target specifications, it can be improved by providing more specific prompts to the AI to expect more concise and consistent results.

3.3.4 Client Meet 3 Feedback

We presented the prototype to our client and explained all its functionality and our future plans with it. Before the client meet, we were still unsure about the use of AI, and if the client was ok with it. But after presenting our ideas and some of the challenges associated with AI, Jason liked the idea of integrating AI in the project. He did mention that the faculty is still divided in terms of privacy concerns of AI, however we provided some assurance as for this project we will be buying the API for ChatGPT, in which case any data provided to ChatGPT will not be used for its training.

Another complication we were facing was defining a data dictionary for the provided CSV file. However, that issue has been resolved after the client meet as well, as we were able to enroll into a course on canvas, and Jason provided us with the analyzed CSV file for the specific course. Now it's just a matter of going back and forth between the files in the course and the CSV file to determine what each column means. Once we have defined the data dictionary, we can integrate that into ChatGPT, to bring the response accuracy rate higher and provide even more consistent solutions.

3.4 Project plan update



4 Economic and IP Considerations

4.1 Economics report

The economic drawbacks of the product, though low, are not negligible. The prototypes utilize the application programming interface of ChatGPT, an artificial intelligence platform developed by OpenAI. The integration of ChatGPT will allow for the analysis of CSV files that would be otherwise unfeasible with an original, trained chatbot model.

The use of ChatGPT comes with a small fee for every prompt and analysis of an uploaded file. Other than the cost of building the product site, the use of external API is the sole recurring cost associated with the product.

The product is expected to provide economic benefits to users by reducing the functional working time of educators looking to improve Canvas content to meet outlined accessibility standards. Such efficiency would allow for an increased abundance of time allocated to other aspects of overseeing courses at Rutgers University for users of the AccessBridge domain.

Expenses	Classification	Amount (\$)
Advertising	Indirect, variable	\$6.50 CPM
Office space (rent + utilities)	Indirect, fixed	\$5000/month
ChatGPT API	Direct, variable	Per usage basis. Approximately \$900/client/year

Firebase	Direct, variable	\$0 up to 50,000 AMU
Labour (customer service)	Direct, fixed	\$20/hr, approximately \$41,500/year
Salary (software developer)	Direct, fixed	\$70,000/year
Server hosting	Direct, variable	Approx \$600/1000 users/year
Overhead	Indirect, variable	\$1000/year

4.1.2

	Income Statement Year 1 - AccessBridge	Amount (\$)		Income Statement Year 2 - AccessBridge	Amount (\$)		Income Statement Year 3 - AccessBridge	Amount (\$)
1								
2								
3	Revenue	\$100,000		Revenue	\$200,000		Revenue	\$500,000
4		(10 licenses at \$10,000/year)			(20 licenses at \$10,000/year)			(50 licenses at \$10,000/year)
5	Operating Expenses			Operating Expenses			Operating Expenses	
6	Salary and Labour	(\$153,000)		Salary and Labour	(\$157,590)		Salary and Labour	(\$162,300)
7	Overhead	(\$1,000)		Overhead	(\$1,000)		Overhead	(\$1,000)
8	Rent and Utilities	(\$60,000)		Rent and Utilities	(\$60,000)		Rent and Utilities	(\$60,000)
9	ChatGPT API	(\$9,000)		ChatGPT API	(\$18,000)		ChatGPT API	(\$45,000)
10	Advertising	(\$6,500)		Advertising	(\$6,500)		Advertising	(\$6,500)
11	Servers	(\$1,200)		Servers	(\$2,400)		Servers	(\$6,000)
12								
13	Operating Expenses Total	(\$230,700)		Operating Expenses Total	(\$245,490)		Operating Expenses	(\$280,800)
14								
15	Operating Income	(\$130,700)		Operating Income	(\$45,490)		Operating Income	\$219,200

4.1.3

Performing a Net Present Value cash flow statement for both total operating expenses and revenue revealed that AccessBridge would not be profitable in years 1 and 2, however it will be profitable by year 3. The following data represents the NPV of operating expenses, as well as revenue.

Year	NPV Revenue	NPV Expenses	Difference
1	\$100,000	(\$230,700)	(\$-130,700)
2	\$191,846.52	(\$235,482.01)	(\$-43,365.49)
3	\$479,408.65	(\$269,235.90)	\$210,072.75
TOTAL	\$771,255.17	(\$735,417.91)	\$36,007.26

4.1.4

Several assumptions were made regarding expenses. Sources will be listed in *Bibliography*. For advertising expenses, the prices came from a price chart for different social media platforms, and what they charge for ads in 2024. The average value of LinkedIn and Twitter were the benchmark numbers, since these would be two platforms that make sense to advertise on. This is because of the presence of Academia on both platforms, particularly LinkedIn. Next, ChatGPT's API. This

number was based on the number of “tokens” ChatGPT will need to process on a yearly basis, per client. => $(\$0.06/1000 \text{ tokens}) \times 375 \text{ tokens per page} \times 60 \text{ pages per course} \times 300 \text{ courses/semester} \times 2 \text{ semesters} = \$900/\text{year/client}$ (university of approximately 10,000 students, faculty of 100-200). Other values based on current market prices, see Bibliography.

Information about the price of competitor products such as Blackboard Ally was difficult to source, however there are a few considerations that can help give a reasonable estimate of the price. Canvas and D2L Brightspace are estimated to cost around \$5 - \$20 per student in a large post-secondary institution. These tools manage the virtual classroom and are adjacent to a program like Ally or AccessBridge. Tools like AccessBridge are guaranteed to cost less than Canvas or Brightspace. Since AccessBridge would only be used by faculty, and on average a mid-size institution would have anywhere from hundreds to over a thousand faculty members, we can say that the average post-secondary institution would have around 500 members. This, when priced according to Brightspace or Canvas, would be between \$2500 - \$10,000 per year. Accessbridge would hope to target larger schools, where the pricing has been accounted for at \$10,000 per year. Nearly all post-secondary institutions in the US and Canada use an LMS platform like Canvas and Brightspace, and since the new rules about mobile accessibility were released in the US, almost all US colleges will require some form of accessibility checker. From research, blackboard Ally seems to be the commonly used tool. With advertising, competitive pricing, and a relatively new market, the projections for market share of AccessBridge look promising. AccessBridge was forecasted to obtain 10 clients in year one, growing to 20 by year 2, and 50 by year 3. This also accounts for the fact that new tools may emerge.

4.2 Intellectual property report One patent that was analyzed which has similar utility components to our project is a patent in the CIPO database with application number **CA 3197623**. The patent title is **SYSTEMS AND METHODS FOR GENERATING A CHATBOT**, which corresponds to the development of a chatbot for the AccessBridge website. The abstract for the patent is as follows:

Systems and methods for generating a chatbot are disclosed. Source data is identified. A first chunk of the source data is also identified. A first machine learning model is executed for automatically generating a first candidate question associated with the first chunk. A determination is made as to whether the first candidate question satisfies a criterion. The first candidate question is output as training data for training the chatbot in response to the determination.

The general basis of the chatbot development method is analyzing source data in chunks, wherein certain questions with varying criteria are posed to validate the chatbot. This patent is currently under examination and thereby has no legal ramifications on the AccessBridge Chatbot. Furthermore, the process of machine learning outlined in the patent does not correspond with the development method of the AccessBridge chatbot.

Another more significant patent that has ties to the AccessBridge website is a patent in the CIPO database with application number **CA 3118095**. The patent title is **ARTIFICIAL INTELLIGENCE (AI) BASED DOCUMENT PROCESSOR**, and the patent abstract is as follows:

An Artificial Intelligence (AI) based document processing system receives a request including one or more of a message and documents related to a process to be automatically executed. A process identifier is extracted and used for retrieving guidelines for the automatic execution of the document processing task. Machine Learning (ML) models, each

corresponding to a guideline, are used to extract data responsive to the guidelines. Based on the responsive data meeting the approval threshold and the automatic document processing task executed, one or more of a recommendation to accept or reject the request, and a corresponding letter can be automatically generated.

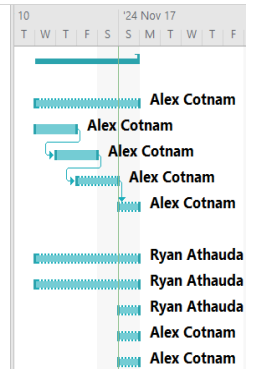
The patent governs various processes associated with analyzing documents through the use of artificial intelligence. In total, there are 20 claims to the patent. This patent has significantly more legal ramifications for our product as the patent has been granted and issued. However, because many claims of the patent are not met by the AccessBridge site in our team's use of AI, there is no legal claim to cease the operation of AccessBridge. Such claims include a convolutional neural network model for extracting data from images, a logistic regression model for categorizing data, parsing and tokenizing capabilities, and the use of entity recognition to extract personal data from documents.

The above patents were the most representative utility patents available in relation to the AccessBridge website, and because of the specified claims, it can be determined that no infringement of intellectual property may occur from the implementation of AccessBridge's technology and features.

4.2 Project plan update

	Task Name	Dura	Resource Names	Start	Finish	Predecessors	Add New Column
88	PD G: Economic and IP considerations				Sun 24-11-17		
89	PD G.1: Economics report	4 days	Alex Cotnam	Wed 24-11-13	Sun 24-11-17		
90	List and Classification of Costs	2 days	Alex Cotnam	Wed 24-11-13	Thu 24-11-14		
91	3-Year income statement	2 days	Alex Cotnam	Thu 24-11-14	Fri 24-11-15	90	
92	NPV analysis	2 days	Alex Cotnam	Fri 24-11-15	Sat 24-11-16	91	
93	Assumptions and evidence	1 day	Alex Cotnam	Sun 24-11-17	Sun 24-11-17	92	
94	PD G.2: IP report		Ryan Athauda				
95	IP relations to product	4 days	Ryan Athauda	Wed 24-11-13	Sun 24-11-17		
96	Importance and legal constraints	4 days	Ryan Athauda	Wed 24-11-13	Sun 24-11-17		
97	PD G quality check	1 day	Ryan Athauda	Sun 24-11-17	Sun 24-11-17		
98	PD G projet plan update	1 day	Alex Cotnam	Sun 24-11-17	Sun 24-11-17		
99	PD-G submission	1 day	Alex Cotnam	Sun 24-11-17	Sun 24-11-17		

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5 Design Day Pitch and Final Prototype Evaluation

Write your design day pitch and plan your prototype demo.

6 Video and User Manual

6.1 Video pitch

Add link to video.

6.2 User manual

See separate template for the user manual. Do not write the content here.

7 Conclusions

The AccessBridge prototype has successfully built a strong base for a tool that helps make educational content more accessible. By focusing on user login, file uploads, and an easy-to-use analysis dashboard, the first version of AccessBridge is meeting its goal of being simple and effective for teachers. We have found some areas to improve, like adding data storage, better analysis tools, and getting more user feedback, which we will work on in the next versions.

The testing of Prototype 1 showed good results, especially in how easy it is to use, how accurately it reads CSV files, and how well it works in different web browsers. There are still some limitations, like only being able to handle one file at a time and not being able to save data between sessions, but these give us a clear idea of what to work on next. With more improvements, AccessBridge can become a very helpful tool for teachers, making it easier for them to improve the accessibility of their course materials.

Overall, this project has made great progress towards its goals, and the feedback we received from testing and client presentations will help guide future development. By continuing to make AccessBridge better, we hope to fully meet both the client's needs and accessibility standards.

8 Bibliography

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